

**ABSTRACT**

A smart appliance network protocol implemented through modifications to the Session Initiation Protocol (SIP), which is used to network a plurality of smart appliances together. The SIP smart appliance network protocol includes a general global naming scheme and a one-step action-location process to communicate messages between network components which include smart appliances. The general global naming scheme enables smart appliances and other network components to address messages to each other in general terms, thereby creating a scalable network that is flexible, easily modified, and accessible from a global location outside local smart appliance networks. The one-step location-action process enables messages to locate the recipient network component as it traverses the network and to carry the action to be performed by the recipient network component, in the same message, thereby reducing the burden on the local network firewall to guarantee secure access of a local smart appliance network to global components.